

## Maintaining a healthy weight during menopause



There are particular stages in life when the risk of weight gain is increased for all individuals given the right environmental conditions. Menopause, like pregnancy, is a high-risk time for weight gain in women. On average, women gain about 0.5 kg per year in the years surrounding menopause. However the weight change is preventable and appears to be associated more strongly with ageing and lifestyle than with menopause, per se.

Although half a kilogram per year represents the average weight gain, there is wide variation in weight change around the menopausal years. In a study of almost 500 perimenopausal women, 20% of women gained 4.5kg or more over the three-year period while 3% lost at least 4.5kg. Although weight gain is a common occurrence for women at the time of menopause it is difficult to predict the type of person most "at risk" of weight gain.

While weight change during the menopausal years appears more related to ageing and lifestyle factors, hormonal changes accompanying menopause are associated with a higher proportion of body fat and a tendency for a more central fat distribution. Thus postmenopausal women tend to have a higher waist to hip ratio (WHR). The altered body-fat distribution may partially explain the greater risk of cardiovascular disease and some cancers

during the post-menopausal years. Reducing energy and fat intake and increasing physical activity can prevent this change in body composition.

The factor most consistently related to weight gain in menopausal women is decreased physical activity. Studies have shown that postmenopausal women tend to be less physically active than age-matched controls who are premenopausal. This decreased physical activity not only reduces energy expenditure through activity as well as muscle and bone strength but can facilitate further weight gain through a lowered resting metabolic rate (RMR). Regular exercise in postmenopausal women can attenuate the accumulation of fat tissue in the upper and central body regions.



### Currently the most effective behavioural approach for management of overweight and obesity is a combination that includes:

- A reduced energy intake (typically 4.2 to 5.0 MJ or 1,000 to 1,200 kcal/day)
- Dietary fat reduction (30% of energy)
- Increased physical activity  
(at least 30 minutes of moderate-intensity activity on most days of the week)
- Behavioural guidance  
(strategies to facilitate a change in eating habits - "triggers" for eating)

## Weight Maintenance

As the average woman gains weight, weight maintenance during menopause should be viewed as a 'success' and not as a failure to lose weight.

Womens' focus needs to be on the prevention of weight gain, regardless of weight, as an essential first step in halting the rapid rise in obesity. This is particularly relevant to women during the meno-pausal years. An individual's satisfaction with weight maintenance may also improve her body image and reduce "weight pre-occupation" in some women.

For women who have lost weight, maintaining this lost weight can sometimes present more of a challenge than the process of losing weight. Weight maintenance is ongoing and keeping the weight off results in long-term health benefits. Why some people are successful at completely maintaining weight loss while others experience relapses is not clear although an association between depression and re-gaining of weight has been reported.

## Weight Control and Bone Health

Our bodies appear to adapt to a larger body weight by strengthening weight-bearing bones. Thus heavier people tend to have higher bone density and lighter individuals tend to have lower bone density. It is not clear if the higher bone density observed in overweight and obese people is commensurate with the increase load on the skeleton needed to support this weight and so prevent fracture in times of minimal trauma.

Weight loss is therefore often associated with a decrease in bone density. However if high bone density could be maintained while fat mass decreased this would present an opportunity for a biological advantage and decrease an individual's risk of osteoporotic fracture in the future.

There is early evidence that a high calcium diet during weight reduction may facilitate fat loss from the trunk region in addition to overall weight loss. An Australian research group has also concluded that a high-protein diet with adequate calcium may protect against bone loss during weight reduction. The recommended daily allowance of calcium during menopause (equivalent to about 4 serves of milk or yoghurt) is quite high to

compensate for high bone turnover. Low fat dairy products offer an excellent source of high quality calcium and protein. People without milk products or calcium-fortified alternatives in their diet may find it difficult to obtain sufficient absorbable calcium as calcium from non-dairy sources tends to be less bioavailable.

Bone health is dependent on an adequate supply of vitamin D. While sun exposure to the skin can provide most of our requirement for vitamin D, a high prevalence of insufficient levels of serum vitamin D has been reported by several Australian study groups with low serum vitamin D levels associated with increased risk of falls and fractures. The Australian food supply remains a poor source of dietary vitamin D with few foods containing significant amounts of the vitamin. As vitamin D is a fat-soluble vitamin it is found in foods that are often eliminated by those trying to lose weight, foods such as butter, margarine and fatty fish.

Thus low energy diets are likely to provide little vitamin D. High calcium, low fat milks with added vitamin D may be a worthwhile addition to the diet particularly during periods where individuals are trying to reduce their overall intake of energy (calories or kilojoules). Vitamin D supplementation and 'sensible' sun exposure may also help maintain bone health during the menopausal years.

## Summary

Menopausal-aged women are at risk of:

- Weight gain (average 0.5kg/ year) that may be related to decreased physical activity and other lifestyle changes rather than directly related to hormonal changes.
- Increased waist circumference; this may be due to hormonal changes causing an increased tendency for central fat deposition.



### The good news:

- This change in body composition can be prevented by reducing energy and fat intake in the diet and increasing physical activity
- Weight maintenance should be viewed as "success" and not as a failure to lose weight. Greater emphasis needs to be placed on 'prevention of weight gain'.
- Early evidence suggests that a high calcium diet during weight reduction may facilitate fat loss from the trunk region and overall weight loss.